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Card 4/6

REPORTS

Painting window frames in a high pressure electrostatic field.  
Dokl. Akad. Nauk SSSR, 14, no. 10, 18-19, 1965. (MIRA 18:12)

RUCKENSTEIN, E.

On the models used for the explanation of the mechanism of turbulent flow of a fluid mass in the immediate vicinity of a wall. p. 689.

REVISTA DE CHIMIE. (Ministerul Industriei Petrolului si Chimiei si Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania) Bucuresti, Rumania. Vol. 9, no. 12, Dec. 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 7, July, 1959.

Uncl.

RUCKENSTEIN, E.

Category : RUMANIA/Atomic and Molecular Physics - Statistical Physics. Thermodynamics. D-3

Abs Jour : Ref Zhur Fizika, No 3, 1957, No 6249

Author : Ruckenstein, E.

Title : Theory of Continuous Molecular Distillation.

Orig Pub : Commun. Acad. RFR, 1956, 6, No 5, 641-647

Abstract : No abstract

Cerd : 1/1

RUCKENSTEIN, F.

Observations on the kinetics of ion exchange in granules. Rev.  
chimie Min petr 12 no.10:618-619 0 '61.

RUMANIA/Physical Chemistry - Liquids and Amorphous Bodies.  
Cases.

B.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 27798

Author : Ruckenstein, E.

Inst :

Title : Evaporation of Thin Liquid Films Under High Vacuum.

Orig Pub : Studii si cercetari fiz, 9, No 1, 25-39 (1957) (in  
Romanian with summaries in French and Russian)

Abstract : Data previously published by the author (RZhKhim, 1957,  
3282; 65275) are supplemented and a number of remarks  
concerning the case of wave motion are included.

Card 1/1

7

RUCKENSTEIN, E.

7 2  
144  
✓ Effectiveness of a plate in the process of rectification of binary systems. E. Ruckenstein. *Zhur. Priklad. Khim.* 30, 1012-16 (1957). Theoretical-math. The over-all effectiveness of a plate, allowing for local differences of stirring by the rising vapors, is analyzed and equations are derived.  
I. Benicewitz

AM

DVORETSKIY, V.G.; NESTERENKO, N.G.; RUCHKIN, A.V.

Improvement of methods and combined geophysical investigations  
of the carbonate sediments of the Volga-Ural region. Geol. nef'ti  
i gaza 7 no.11:47-52 N '63. (MIRA 17:8)

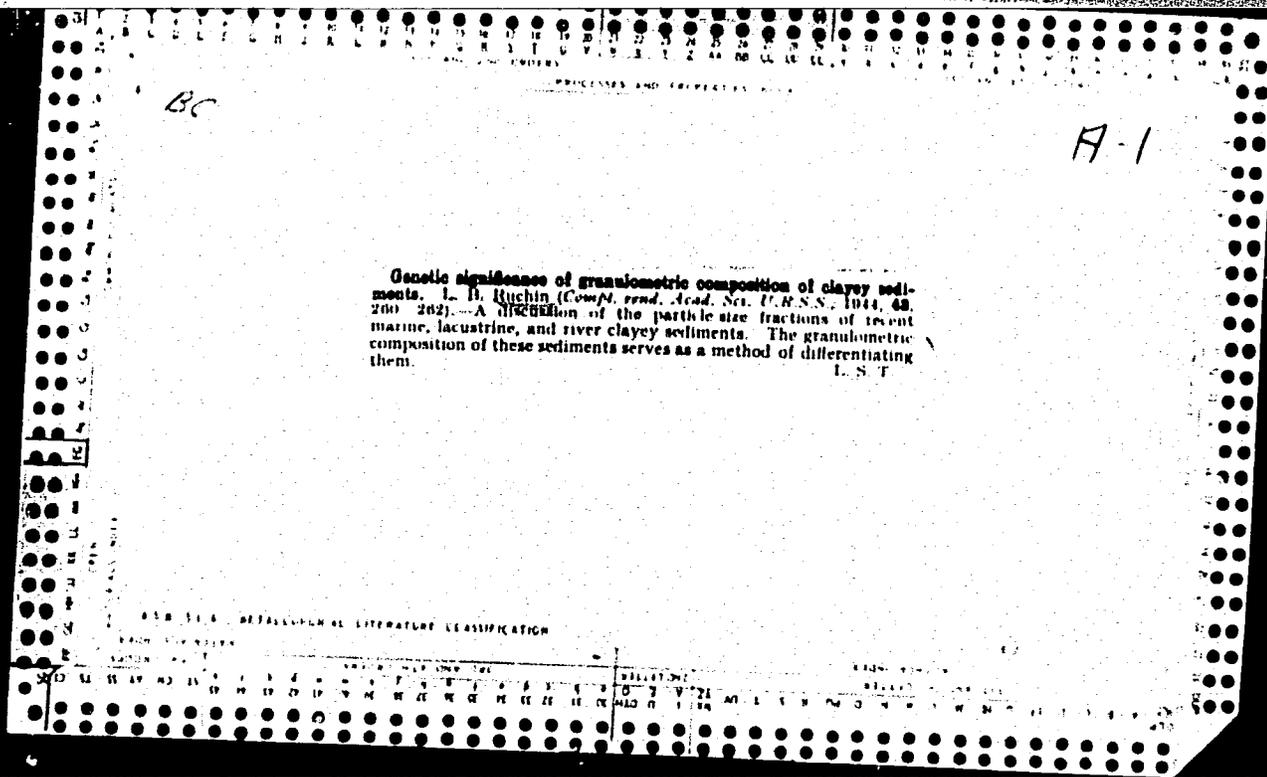
1. Volgo-Ural'skiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta geofizicheskikh metodov truda.

ORLOV, L.I.; RUCHKIN, A.V.

Separation of fractured reservoirs according to the data of electric logging. Razved. geofiz. no.4:94-104 '65. (MIRA 18:9)

IVANOV, V.I.; POZE, B.B.; RUCHKIN, B.F.; TARUSHKA, I.Yu. (Prokop'yevsk)

Plastic surgery on traumatic defects of the skull using  
styrene-acryl. Vop. neurokhir. 26 no.6:53 N-D'62 (MIRA 17:3)



Genetic significance of granulometric composition of clayey sediments. I. B. Ruchin (*Compt. rend. Acad. Sci. U.R.S.S.*, 1944, **48**, 264-262).—A discussion of the particle-size fractions of recent marine, lacustrine, and river clayey sediments. The granulometric composition of these sediments serves as a method of differentiating them. L. S. I.

RUCHKIN, V. P.

RUCHKIN, V. P. "The calculation of Tank Bottoms with a Flexible Single-Layer Base (based on Professor V. Z. Vlasov's Theory)." Min Higher Education USSR. Moscow Order of Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,

RUCHKIN, G. I.

Fish, Smoked

Increasing the capacity of the smoke room. Ryb. khoz. 28 no. 7, 1952.

Monthly List of Russian Accessions. Library of Congress. November 1952 UNCLASSIFIED.

RUCHKIN, M. V.

Technology

Konstruirovaniye verkhnego muzhskogo plat'ia (Manufacture of outer garments for men).  
Moskva, Gizleprom, 1951. 233 p.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 ~~1953~~, Uncl.

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82899  
S/120/60/000/02/030/052  
E032/E414

AUTHORS: Leonas, V.B. and Rubtsov, V.K.

TITLE: A Selector for Studying Molecular Velocities

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, Nr 2,  
pp 115-118 (USSR)

ABSTRACT: The present instrument is based on the so-called "time of flight" method, in which a continuous molecular beam is produced and is subsequently divided into groups of particles with given time of flight over a defined distance. The basic element of the selector is a rotor consisting of a rotating shaft with two discs attached to it. The discs have narrow slots cut in them. If only a single disc is used, a modulated beam is produced. The latter is very convenient because it does not involve the use of d.c. amplifiers. Fig 2 shows an oscillogram obtained for a beam modulated by a single disc. The pulses on the oscillogram correspond to the arrival at the detector of successive groups of molecules. Fig 3 shows a selector consisting of a shaft with two discs, 1 and 4, at a distance of 100 mm from each other. The discs are 50 mm in diameter.

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E032/E414

A Selector for Studying Molecular Velocities

9 and 10 constitute an arrangement for counting the number of revolutions and 8 is the stator. The slots in the two discs are displaced relative to each other. At a given angular velocity, only those particles will pass through the system for which the time of flight between the two discs is equal to the time taken by the discs to rotate through an angle equal to the angle between the corresponding slots. The slots were made 0.3 mm wide and 4 mm long. The displacement between them was 4 mm. The error associated with the finite width of the slots was  $\pm 7.5\%$ . Table 1 gives some of the working characteristics of the selector (column 1, angular velocity in rps; column 2, time of flight in m/sec; column 3, measured velocity in km/sec; column 4, velocity of slow particles passing through the second slot in km/sec). Details are given of the method of winding of the stator and it is claimed that the machine will work in a vacuum of  $10^{-5}$  mm Hg without noticeable out-gassing. There are *HT*

Card 2/3

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E032/E414

A Selector for Studying Molecular Velocities

7 figures, 2 tables and 4 references, 3 of which are  
English and 1 Soviet.

ASSOCIATION: Fizicheskiy fakul'tet MGU  
(Physics Department, Moscow State University)

SUBMITTED: December 29, 1958

Card 3/3

1ST AND 2ND SERIES      PROCESSES AND PROPERTIES INDEX

190 AND 4TH EDITION

BC

K-17

Oil in the juice of berries: *V. Rucnik* (Masobuhin-Zhir. Delo, 1929, No. 2, 47-48).—Oils of the bark (3.06%), berries (2.00%), and seeds (12.13%), respectively, of *Hippophae rhamnoides*, L. (Siberia), afford the following values: acid 9.60, 7.35, 4.42; saponif. 189.2, 190.0, 192.6; ester 179.6, 182.7, 186.1; iodine (Hahl) —, 76.5, 136.2; iodine (Margoschen) 56.3, 76.8, 136.4; Reichert-Meissl —, 0.79, 0.58; acetyl (Normann) —, 16.4, 10.4; unsaponif. —, 9.66, 1.78; hydroxy-acids —, 0.79, 0.61; hexabromides —, 0.19.58;  $n_D^{20}$  —, 0.92439, 0.92763;  $n_D^{20}$  12.0°, 6.4°. 20.0°;  $n_D^{20}$  1.4659, 1.4642, 1.4759; i.p. of fatty acids 39.5°, 34°, 1.3°; mol. wt. of fatty acids —, 276.5, 278.9; iodine 61.2, 78.2, 140.3; linolenic acid 0, 0, 14.63; linoleic acid 0, 10.5, 12.31; isolinoleic acid 0, 0, 30.69; oleic acid 62.6, 63.4, 41.47; palmitic and stearic acid 37.4, 10.4, 10.9°.

CHEMICAL ABSTRACTS.

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

E.S.O.N. SYMBOLS

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION	E.S.O.N. SYMBOLS	A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION	E.S.O.N. SYMBOLS
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

The oil in the juice of berries. V. RUCHKIN. *Mastobina-Zhirnos Delo* 1929, No. 2, 47 ff. *Hippophae rhamnoides* L. is one of the rare plants contg. its oil in the watery juice. It grows in Siberia, mostly along the banks of mountain rivers. This plant contains also an oil in its seeds and bark. The contents of oils in the bark, berries and seeds, resp., are 3.06, 2.10, 12.13%, with acid nos. 9.00, 7.35, 4.42; sapon. nos. 180.2, 190.0, 192.5; ester nos. 179.6, 182.7, 188.1; I nos. (Huebl) 76.5, 138.2, I (Norman) (Margosches) 56.5, 76.8, 138.4; Reichert-Meiscl 0.79, 0.58; acetyl nos. (Norman) 10.4, 10.4; unsaponifiable 3.90, 1.78; hydroxy acids 0.79, 0.61; hexabromides 0.1958, d. 0.92435, 0.92781; solidifying point 12.0°, 0.1°, 21.0°; n<sub>D</sub> 1.4630, 1.4642, 1.4730. Fatty acids solidify at 39.5°, 31.0°, 1.3°; av. mol. wt. 276.5, 278.9. I nos. 61.2, 78.2, 140.3. Linolenic acid 0, 0, 14.63; linoleic acid 0, 10.5, 12.31; isolinoleic acid 0, 0, 20.69; oleic acid 62.0, 63.4, 41.47; palmitic acid 0, 10.5, 12.31, 10.4, 10.90. The oil from the berries is dark red and has a pleasant odor and taste. The oil from the bark and seeds is yellow, of indefinite odor; the taste of the bark oil is fatty. Bellier's reaction is positive for all these oils. The oil from the seeds is also fatty. E. BIRLOTT'S

AZARKOVICH, A.Ye., inzh.; RUCHKIN, V.M., inzh.

Results of industrial tests of ED-8-56 electric detonators.  
Gor. zhur. no.7:51-55 J1 '58.

(MIRA 11:9)

1. Soyuzvzrypprom.

(Mining engineering) (Blasting)

*RUCHKIN, V. M.*

AUTHOR: Azarkovich, A.Ye. and Ruchkin, V.M., Engineers 127-58-7-9/20

TITLE: Results of the Industrial Testing of the Electric Detonators ED-8-56 (Rezultaty proizvodstvennykh ispytaniy elektro-detonatorov ED-8-56)

PERIODICAL: Gornyy zhurnal, 1958, Nr 7, pp 51-55 (USSR)

ABSTRACT: The "ED-8-56" instantaneous action electric detonators, with nichrome incandescent bridges were recently introduced into the mining industry. The authors give advice on how to use them under different working conditions and with different electric currents. There are 3 tables, 2 graphs and 2 Soviet references.

ASSOCIATION: Soyuzvzryvprom

Card 1/1 1. Detonators-Test methods 2. Detonators-Test results

RUCHKIN, Vladimir Matveyevich; DAVYDOV, Stepan Aleksandrovich; PRUDNIKOVA,  
M.N., redaktor; LYUDKOVSKAYA, N.I., tekhnicheskij redaktor

[Briefly retarded explosions in open pit mines] Korotkozamedlennoe  
vzryvanie na kar'erakh. Moskva, Gos. izd-vo lit-ry po stroit.  
materialam, 1956. 51 p. (MIRA 10:1)  
(Blasting)

RUCHKIN, V.N.

The drying ability of linseed-oil in the process of the ripening of seeds,  
V.N. RUCHKIN ( CHAIR OF TECHNOLOGY, FARMING INST. OMSK) vol.3, no.5, p 628,  
1938.

31735

S/081/61/000/021/062/094  
B138/B101

11.71✓0

AUTHORS: Grinberg, D. M., Leontovich, L. V., Ruc in, V. M.,  
Shishkin, A. F.

TITLE: Apparatus for measuring the moisture content of ammonium  
nitrate explosives

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1961, 391, abstract  
21446 (Bezopasnost' truda v prom-sti, no. 4, 1961,  
23 - 24)

TEXT: The article describes a portable electrical instrument ПЭВ (PEV) designed for the rapid measurement of the moisture content of ammonium nitrate explosives and of ammonium nitrate. The instrument measures the electrical resistivity of samples of the substance. This value is a function of humidity. To calibrate the PEV, the resistivity of several samples is measured, and at the same time their moisture content is determined by the oven-drying method. The PEV consists of an electric circuit for measuring resistance, and a transmitting unit which is a

Card 1/2

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B138/B101

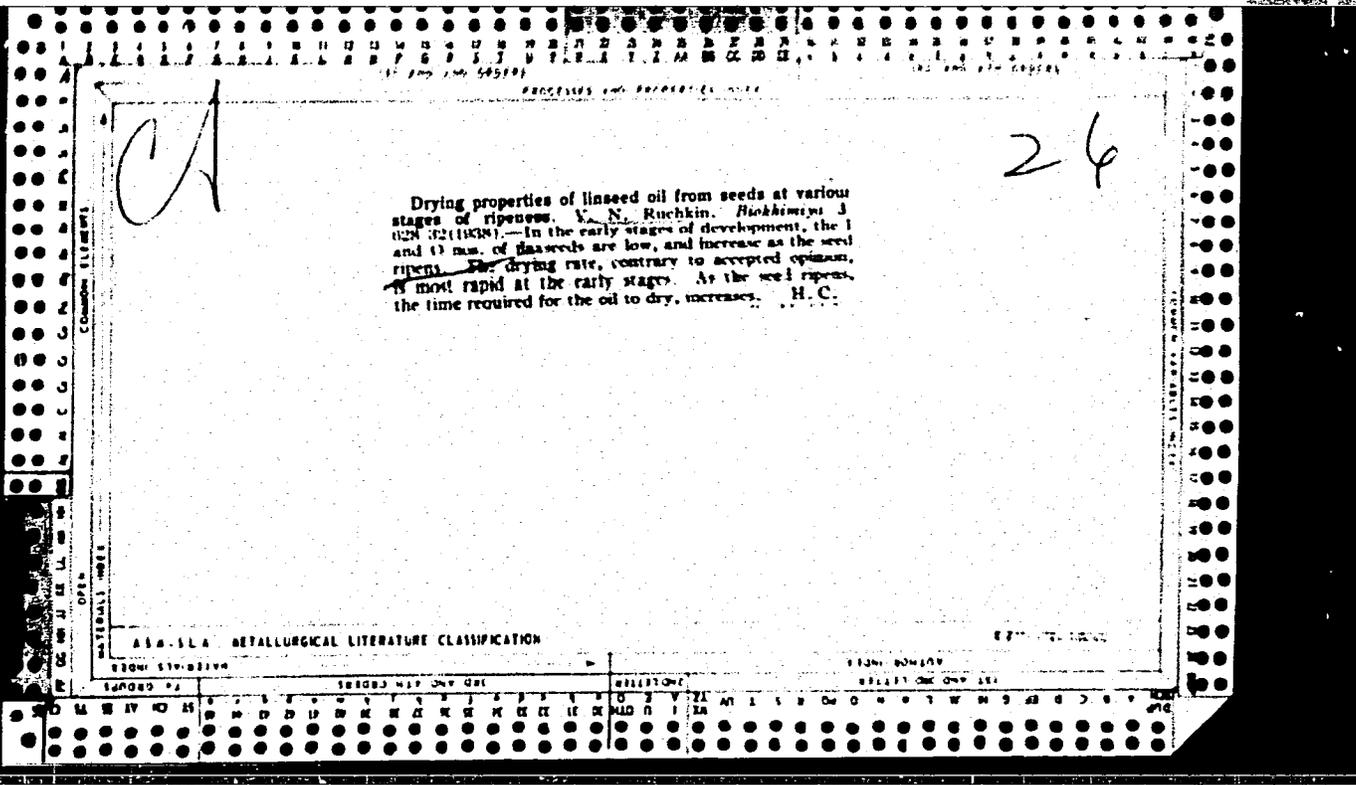
Apparatus for measuring the moisture...

cylindrical plastic container with an inside diameter of 65 mm and depth of 27 mm. It has two aluminium electrodes in the shape of rectangular plates 27 mm in length and 10 mm wide. The test substance, in powder form, is placed in the transmitting unit, resistivity is measured, and the moisture content is found from the calibrating curve. With the appropriate calibration, the instrument can be used to measure the moisture content of various different substances which have high electrical conductivity, e.g. mineral salts and fertilisers. [Abstracter's note: Complete translation.]

Card 2/2

X





1A

26

The quality of linseed oil obtained from flaxseed at early stages of maturity. V. N. Ruzhkin. *Makolovskoe Zhurnal* 15, No. 6, 6 (1937), cl. C. 1. 33, 3187.

Six uniformly graded seed specimens were taken at intervals of 8-10 days from 3 plots seeded May 3rd and 15th and June 10th in 1937. Identical procedure was used with sowings in 1938. After the fixation with steam, the dry seeds were extd. with Et<sub>2</sub>O and the phys. consts. and film-forming properties of the resulting oil were examd. at 18-20° in diffusd light (December). The tabulated results show that the I<sub>1</sub> values and the rate of film drying of oil decrease with successive stages of maturity, while the I<sub>2</sub> values increase but slightly. Contrary to Lalantsev (J. C. 1. 22, 2482), the mucilaginous substances do not retard the process of film drying, since their contents decrease from 0.19 to 0.17% with greater maturity. Expts. showed that the film drying is catalyzed by the chlorophyll present in the unripe seeds. The addn. of the pigment to oil derived from fully matured seeds resulted in acceleration of the drying process and in direct proportion to the chlorophyll added. Similar effect was produced by the addn. of the chlorophyll derivs., such as phosphorbule and phophytin and its metal lakes (Cu).  
Chas. Blanc

438 51A METALLURGICAL LITERATURE CLASSIFICATION



✓ Biochemical peculiarities of apple fruit grown in Omsk.  
V. N. Ruchkin, P. G. Kropacheva, and L. V. Paduchikh  
(S. M. Kirov Agr. Inst., Omsk). *Biokhim. Plodov i Ovosch-*  
*chet, Akad. Nauk S.S.S.R., Inst. Biokhim., Sbornik 3,*  
231-39 (1965).—Tables of analyses of cultured and wild varie-  
ties of apples grown in Omsk area are given for dry matter,  
pectins, nitrogenous substances, ascorbic acid and intensity  
of respiration. The wild varieties tend to contain higher  
levels of vitamin C, but this tends to decline more rapidly  
in storage than is true of the cultured varieties. Wet and  
cold summers tend to lower the activity of oxidases. Within  
a given variety no correlation could be found between  
storage stability, preservation of vitamin C, and oxidase  
activity.  
G. M. Kosolapoff

RUCHKIN, V.N.; ZOTOVA, O.N.

Carotene content of yellow-fleshed potato varieties under conditions prevailing in Omsk. Biokhim.pl.i ovoshch. no.6:122-131 '61.

(MIRA 14:6)

1. Omskiy sel'skokhozyaystvennyy institut imeni S.M.Kirova.  
(Omsk—Potatoes—Varieties) (Carotene)

RUCHKIN, V.N.

AFANAS'YEVA, A.L., kand.biol.nauk; BAYERTUYEV, A.A., kand.sel'skokhozyaystvennykh nauk; BAL'CHUGOV, A.V., kand.sel'skokhozyaystvennykh nauk; BELOZEROVA, N.A., agronom; BELOZOROV, A.T., kand.sel'skokhozyaystvennykh nauk; MAKSIMENKO, V.P., agronom; BERNIKOV, V.V.; doktor sel'skokhozyaystvennykh nauk; BOGOMYAGKOV, S.T., kand.sel'skokhozyaystvennykh nauk; VOLYNETS, O.S., agronom; BODROV, M.S., kand.sel'skokhozyaystvennykh nauk; BOGOSLAVSKIY, V.P., kand.tekhn.nauk; KHRUPPA, I.F., kand.tekhn.nauk; VERNER, A.R., doktor biol.nauk; VOZBUTSKAYA, A.Ye., kand.sel'skokhozyaystvennykh nauk; VOINOV, P.A., kand.sel'skokhozyaystvennykh nauk; VYSOKOS, G.P., kand.biol.nauk; GALDIN, M.V., inzhener-mekhanik; GERASIMOV, S.A., kand.tekhn.nauk; GORSHENIN, K.P., doktor sel'skokhozyaystvennykh nauk; YELENEV, A.V., inzhener-mekhanik; GERASKEVICH, S.V., mekhanik [deceased]; ZHARIKOVA, L.D., kand.sel'skokhozyaystvennykh nauk; ZHEGALOV, I.S., kand.tekhn.nauk; ZIMINA, Ye.A., agronom; BARANOV, V.V., kand.tekhn.nauk; PAVLOV, V.D.; IVANOV, V.K., kand.sel'skokhozyaystvennykh nauk; KAPLAN, S.M., kand.sel'skokhozyaystvennykh nauk; KATIN-YARTSEV, L.V., kand.sel'skokhozyaystvennykh nauk; KOPYRIN, V.I., doktor sel'skokhozyaystvennykh nauk; KOCHERGIN, A.Ye., kand.sel'skokhozyaystvennykh nauk; KOZHEVNIKOV, A.R., kand.sel'skokhozyaystvennykh nauk; KUZNETSOV, I.H., kand.sel'skokhozyaystvennykh nauk; LAMBIN, A.Z., doktor biol.nauk; LEONT'YEV, S.I., kand.sel'skokhozyaystvennykh nauk; MAYBORODA, N.M., kand.sel'skokhozyaystvennykh nauk; MAKAROVA, G.I., kand.sel'skokhozyaystvennykh nauk; MEL'NIKOV, G.A., inzhener; ZHDANOV, B.A., kand.sel'skokhozyaystvennykh nauk; MIKHAYLENKO, M.A., kand.sel'skokhozyaystvennykh nauk; MAGILEVTSEVA, N.A., kand.sel'skokhozyaystvennykh nauk;

(Continued on next card)

AFANAS'YEVA, A.L.... (continued) Card 2.

NIKIFOROV, P.Ye., kand.sel'skokhozyaystvennykh nauk; MENASHEV, N.I., lesovod; PERVUSHINA, A.N., agronom; PLOTNIKOV, N.A., kand.biol.nauk; L.G.; kand.sel'skokhozyaystvennykh nauk; PAVLOV, V.D., kand.tekhn.nauk; FRUTSKOVA, M.G., kand.sel'skokhozyaystvennykh nauk; GURCHENKO, V.S., agronom; POPOVA, G.I., kand. sel'skokhozyaystvennykh nauk; PORTYANKO, A.F., agronom; RUCHKIN, V.N., prof.; RUSHKOVSKIY, T.V., agronom; SAVITSKIY, M.S., kand.sel'skokhozyaystvennykh nauk; BOLDIN, D.T., agronom; NESTEROVA, A.V., agronom; SERAFIMOVICH, L.B., kand. tekhn.nauk; SMIRNOV, I.N., kand.sel'skokhozyaystvennykh nauk; SEREBRYANSKAYA, P.I., kand.tekhn.nauk; TOKHTUYEV, A.V., kand. sel'skokhozyaystvennykh nauk; FAL'KO, O.S., iznzh.; FEDYUSHIN, A.V., doktor biol.nauk; SHEVLYAGIN, A.I., kand.sel'skokhozyaystvennykh nauk; YUFEROV, V.A., kand.sel'skokhozyaystvennykh nauk; YAKHTENFEL'D, P.A., kand.sel'skokhozyaystvennykh nauk; SEMENOVSKIY, A.A., red.; GOR'KOVA, Z.D., tekhn.red.

[Handbook for Siberian agriculturists] Spravochnaya kniga agronoma Sibiri. Moskva, Gos. izd-vo sel'khoz. lit-ry. Vol.1. 1957. 964 p. (Siberia--Agriculture) (MIRA 11:2)

BARSUKOV, N.I., kand.sel'skokhozyaystvennykh nauk; KIZYURIN, A.D., doktor sel'skokhozyaystvennykh nauk; BORINEVICH, V.A., kand.sel'skokhozyaystvennykh nauk; BORMUSOVA, S.H., agronom; VERMENICHEVA, M.D., kand.sel'skokhozyaystvennykh nauk; GSEHELE, E.E., doktor biol. nauk; GOROKHOV, G.I., kand.sel'skokhozyaystvennykh nauk; GUBKIN, S.M., kand. veterinarnykh nauk; YELYKOVA, L.I., kand.sel'skokhozyaystvennykh nauk; KOTT, S.V., doktor biol. nauk; KOCHKINA, V.A., agronom; LAMBIN, A.Z., doktor biol.nauk; LEBEDEVA, Ye.M., agronom; MALAKHOVSKIY, A.Ya., doktor sel'skokhozyaystvennykh nauk; MAYBORODA, N.M., kand. sel'skokhozyaystvennykh nauk; MAYDANYUK, A.E., zooteknik; OVSYALNIKOV, G.Ye., kand.sel'skokhozyaystvennykh nauk; PASTROV, F.A., kand.biol.nauk; POGORELOV, P.F., agronom; POLKOSHNIKOV, M.G., dotsent; REINARD, G.K., kand. sel'skokhozyaystvennykh nauk; RUCHKIN, V.N., prof.; SADYRIN, M.M., kand.sel'skokhozyaystvennykh nauk; TOBOL'SKIY, V.YA., vetvrach; TYAZHEL'NIKOV, S.J., kand.sel'skokhozyaystvennykh nauk; UKHIN, I.I., kand.sel'skokhozyaystvennykh nauk; FEDOROV, G.V., kand.sel'skokhozyaystvennykh nauk; CHIRKOV, D.I., zooteknik; TSINGOVATOV, V.A., prof.; SHVETSOVA, A.H., kand.sel'skokhozyaystvennykh nauk; SHEVLYAGIN, A.I., kand.sel'skokhozyaystvennykh nauk; SEMENOVSKIY, A.A., red.; GOLUBINSKAYA, Ye.S., red.; MECHAYEVA, Ye.G., red.; PERESYPKINA, Z.D., tekhnicheskiiy red.

[Siberian agronomist's reference manual] Spravochnaya kniga agronoma Sibiri. Moskva, Gos. izd-vo sel'khoz. lit-ry, Vol.2. 1957. 839 p.  
(Siberia--Agriculture) (MIRA 11:3)

*RUCHKIN Y.E.D.*

*Chem* *22* *05*

The ionic radii and refractivities of the metals of Group VIII/ S. S. Batsanov and B. D. Ruchkin (M. V. Lomonosov State Univ., Moscow). *Kristallografiya* 1, 595-6 (1960). The ionic refractivities are calcd. from Kordes' formula (C.A. 34, 6647),  $R = 1.354(r Z^{2/(n-2)})^{1/3}$  in which Z is the valency, n is the Born coeff. of repulsion, and r the ionic radius calcd. from the electronegativity (EN) of the ion and the electron d. (ED) of the corresponding rare gas

atom by  $r^3 = Z/(k^3 \times ED \cdot EN)$ . This gives for the refractivities: Fe<sup>++</sup> 1.14, Fe<sup>+++</sup> 1.13, Co<sup>++</sup> 1.11, Co<sup>+++</sup> 1.09, Ni<sup>++</sup> 1.08, Ni<sup>+++</sup> 1.06, Ni<sup>++</sup> 1.03, Ru<sup>++</sup> 1.37, Ru<sup>+++</sup> 1.33, Rh<sup>++</sup> 1.20, Rh<sup>+++</sup> 1.41, Rh<sup>++</sup> 1.33, Rh<sup>++</sup> 1.23, Pt<sup>++</sup> 1.62, Pd<sup>++</sup> 1.31, Os<sup>++</sup> 1.57, Os<sup>+++</sup> 1.41, Os<sup>++</sup> 1.28, Ir<sup>++</sup> 1.57, Ir<sup>+++</sup> 1.41, Ir<sup>++</sup> 1.28, Pt<sup>++</sup> 1.69, Pt<sup>++</sup> 1.39. A. L. M.

*fm CRT*

BATSANOV, S.S.; RUCHKIN, Ye.D.

Part 2: Using refractometry for quantitative characterization of  
transinfluence. Zhur. neorg. khim. 2 no.11:2553-2561 N '57.

(Refractometry) (Nickel) (Platinum) (MIRA 11:3)

5 (2)

AUTHORS: Batsanov, S. S., Ruchkin, Ye. D. SOV/78-4-8-5/43

TITLE: Mixed Halides of Tetravalent Platinum (Smeshannye galogenidy chetyrehvalentnoy platiny)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 8, pp 1728 - 1733 (USSR)

ABSTRACT: The complex compounds of platinum have been investigated in detail, which, however, is not the case with the simple compounds of platinum. They are in general, difficultly soluble, which renders their investigation by the normal methods very difficult. On the basis of the success achieved in theoretical chemistry, however, also these compounds are now accessible. The authors base their investigations on the assumption by L. Pauling (Ref 2) on the distribution of the electron charges in the complex compounds. According to the principle of the electroneutrality which he set up, the central atom is either electrically neutral or its charge does not exceed  $\pm 1/2$ . The polarity of the platinum-halogen compounds is then estimated and the charge distribution in the simple halogen compounds of platinum is computed on the basis of the electronegativities

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Mixed Halides of Tetravalent Platinum

SOV/78-4-8-5/43

of Pt, F, Cl, Br and J. It follows therefrom that, in general, the metal is (except for the fluorines) negatively, and the halogens (except for F) are positively charged. The same results are obtained according to the concept of electronegativity set up by R. Sanderson (Refs 6,7). In order to examine this the reaction of the oxidizing agents on the halides of divalent platinum was investigated. If a substitution takes place, then the halogen atom was negatively charged, if an addition takes place, then the negative charge was bound to be in the platinum. The reaction of  $PtJ_2$  with Cl and Br,  $PtBr_2$  with Cl and J,  $PtCl_2$  with iodine was carried out. In each case new compounds of tetravalent platinum of the type  $PtX_2Y_2$  (X,Y - halogen) were formed by the addition. The compounds  $PtX_2Y_2$  differ from the isomeric  $PtY_2X_2$  with respect to their physical constants. This phenomenon is termed as square-coordinate-isomerism since the difference is due to the position of the halogen atoms in the squares of the bonds or the coordinates of the bonds. The measured molar refraction of the mixed halogen compounds of tetra-

Card 2/3

Mixed Halides of Tetravalent Platinum

SOV/78-4-8-5/43

valent platinum is higher than the results of an additive computation. This exaltation of the refraction is explained by the trans-effect. There are 16 references, 6 of which are Soviet.

SUBMITTED: November 26, 1957

Card 3/3

GAGARINSKIY, Yu.V.; RUCHKIN, Ye.D.; LUK'YANOVA, L.A.; KUSTOVA, G.N.;  
BATSANOV, S.S.

Crystal chemical study of thorium tetrafluoride hydrates. Izv.  
SO AN SSSR no.11 Ser.khim.nauk no.3:8-16 '63. (MIRA 17:3)

RUCHKIN, Ye.D.; BATSANOV, S.S.

New method of obtaining the immersion preparations from selenium-sulphur alloys. Izv. SO AN SSSR no.11 Ser.khim.nauk no.3:122-123 '63. (MIRA 17:3)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk.

ABLOV, A.V.; RUCHKIN, Ye.D.

Bond refractions of zinc in tetrahedral complexes. Zhur.strukt.  
khim. 4 no.1:50-54 Ja-F '63. (MIRA 16:2)

1. Kishinevskiy gosudarstvennyy universitet i Institut neorgani-  
cheskoy khimii Sibirskogo otdeleniya AN SSSR.  
(Zinc compounds) (Chemical bonds) (Refractometry)

RUCHKIN, Ye.D.; UKRAINTSEVA, E.A.

Refraction of crystallizing hydrogen peroxide. Zhur.strukt.khim.  
4 no.6:923-924 N-D '63. (MIRA 17:4)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya  
AN SSSR.

MIRCHOV, K. Ya.; POPOV, A.P.; RUCHKIN, Ya.D.; BATSANOV, S.S.

Nitrates of the cerium group of rare-earth metals. Report No. 1:  
Optical properties of nitrates hexa- and tetrahydrates. Izv. SO  
AN SSSR no.7 Ser. khim. nauk no.2:48-57 '64 (MIRA 18:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR,  
Novosibirsk.

L 36985-65 EWG(j)/EWT(m)/EFF(o)/EPR/EWP(t)/EWP(b) Pr-4/Ps-4

IJP(c) JD/JG

ACCESSION NR: AP5007755

S/0192/65/006/001/0058/0065

28  
27  
B

AUTHOR: Batsanov, S. S.; Kustova, G. N.; Ruchkin, Ye. D.; Grigor'yeva, V. S.

TITLE: Optical properties of rare earth metal oxides. 2. A polythermic study of neodymium oxide

~1 ~1

SOURCE: Zhurnal strukturnoy khimii, v. 6, no. 1, 1965, 58-65

TOPIC TAGS: rare earth oxide, oxide optical property, neodymium oxide, polymorphic transformation, neodymium nitrate, neodymium oxalate, neodymium sulfate, neodymium coordination number, neodymium oxide structure

ABSTRACT: The authors report the results of X-ray, refractometric and spectroscopic studies of Nd<sub>2</sub>O<sub>3</sub> obtained by roasting neodymium nitrate, oxalate and sulfate at 600-1300C in air. The nitrate proved least and the sulfate most resistant to heat. It was shown that a sufficiently pure oxide is only obtained at 1100C. Upon dissociation of the Nd sulfate, the oxysulfate was obtained (Nd<sub>2</sub>O<sub>2</sub>SO<sub>4</sub>) between 800 and 1000C. This was also studied. Polymorphic C → A transformation was detected for the oxalate at 700-800C. for the nitrate at 800-900C. No such transformation was seen for the sulfate where the A-form

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L 36985-65  
ACCESSION NR: AP5007755

0

appeared at 1100C. Under the experimental conditions, no B-form was detected. Refractometric studies showed irregular changes in density with increasing temperature; however, a decrease in density was noted for all specimens at 1200C. The maximal density between 1000 and 1100C may be related to the existence of the B-modification. The structures of the A and C form were shown to differ by the coordination numbers of the metal atom, 7 for A and 6 for C-Nd<sub>2</sub>O<sub>3</sub>. In spectroscopic determinations on the nitrate, the Nd-O band started at 400, corresponding to the formation of the oxynitrate, and persisted to 900C. Similar results were obtained for the oxalate. For the sulfate, the Nd-O bond appeared only around 900C, together with that of SO<sub>4</sub><sup>2-</sup> corresponding to the existence of the oxysulfate rather than a mixture of the sulfate and oxide. The oxysulfate disappeared completely at 1100C. The 2 maxima obtained for the Nd-O bond in the sulfate suggest that isolation of SO<sub>3</sub> at this temperature might also yield the C-form for the sulfate. In the process of thermal dissociation of the salts, the absorption intensity  $\nu(\text{Nd-O})$  was observed to increase at the beginning, due to increase in Nd<sub>2</sub>O<sub>3</sub> concentration in the specimen, and then drop due to a decrease in the number of defects in the structure. Orig. art. has: 3 figures and 5 tables.

Card 2/3

L 36985-65  
ACCESSION NR: AP5007755

ASSOCIATION: Institut neorganicheskoy khimii SO AN SSSR, Novosibirsk (Institute of Inorganic Chemistry, SO AN. SSSR)

SUBMITTED: 03Jan64

ENCL: 00

SUB CODE: IC, OP

NO REF SOV: 005

OTHER: 008

Card

3/3 *ls*

L 53912-65 EWG(j)/ENT(m)/EPF(c)/EPR/EWP(t)/EWP(b) Pr-4/Ps-4 LJP(c) JD/JG  
 ACCESSION NR: AP5011827 UR/0192/65/006/002/0310/0313 30  
 541.65 29  
 6

AUTHOR: Batsanov, S. S.; Obzherina, K. F.; Ruchkin, Ye. D.

TITLE: Optical properties of rare earth oxides. Part 3. Polythermal study of europium and erbium oxides 71

SOURCE: 27 Zhurnal strukturnoy khimii, v. 6, no. 2, 1965, 310-313

TOPIC TAGS: rare earth oxide, europium oxide, erbium oxide, oxide optical property, infrared absorption spectrum, rare earth oxalate, polycrystalline oxide

ABSTRACT: The oxalates  $\text{Eu}_2(\text{C}_2\text{O}_4)_3 \cdot 10\text{H}_2\text{O}$  and  $\text{Er}_2(\text{C}_2\text{O}_4)_3 \cdot 10\text{H}_2\text{O}$  were the subject of a polythermal study. Infrared spectra of these compounds and of the hydrates  $\text{Eu}_2(\text{C}_2\text{O}_4)_3 \cdot 3.5 \text{H}_2\text{O}$  and  $\text{Er}_2(\text{C}_2\text{O}_4)_3 \cdot 3.1 \text{H}_2\text{O}$  obtained by raising the temperature from 50 to 150C in a vacuum desiccator showed that, in erbium oxalate, the removal of the water is associated with a strengthening of the hydrogen bonds between the oxalate ion and the remaining watermolecules, as indicated by a shift of the stretching vibration band of the O-H bond toward longer waves. The compounds were heated further, and refractometric and infrared measurements were

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L 53912-65

ACCESSION NR: AP5011827

made. At 700-800C, the bands at 1300-1500  $\text{cm}^{-1}$  corresponding to the C-O bond disappeared. The contour of the  $\nu_2$  band (Eu-O) in the sample fired at 1200C differed markedly from the spectra of samples heated at lower temperatures. After the rare earth oxide has formed, i.e., starting at 500C, a certain change in the intensity of the principal absorption band takes place. At 900-1200C, the intensity of the absorption band remains practically unchanged, decreases by 6-7% on heating to 1350C, and sharply declines in fused samples. The reason for this intensity change is thought to be a decrease in the number of defects associated with the heating of polycrystalline rare earth oxides obtained by decomposing a more complex salt. The single crystal has the smallest number of defects and a minimum intensity of the band of the antisymmetrical stretching vibration. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Institut neorganicheskoy khimii SO AN SSSR (Institute of Inorganic Chemistry, SO AN SSSR)

SUBMITTED: 10Aug64

ENCL: 00

SUB CODE: IC,OP

NO REF SOV: 005

OTHER: 006

*jac*  
Card 2/2

BATSANOV, S.S.; RUCHKIN, Ye.D.

Isomerism of mixed platinum halides. Zhur.org.khim. 10  
no.12:2602-2605 D '65. (MIRA 19:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya  
AN SSSR.

MISHCHENKO, P.I.; RUCHKINA, O.P.

Diuretic action of diacarb. Sov.med. 24 no.1:123-126 Ja '60.

(MIRA 13:5)

1. Iz kliniki propedevtiki vnutrennikh bolezney (zav. - prof.  
A.M. Damir) II Moskovskogo meditsinskogo instituta imeni N.I.  
Pirogova.

(ACETAZOLAMIDE pharmacol.)

BUCHKINA, V. D.

BUCHKINA, V. D. - "X-ray Investigation of Palladium Catalysts Depending on the Conditions of Electrolytic Production and Heat Treatment." Leningrad State Pedagogical Inst imeni A. I. Gertsen, Chair of Experimental Physics, Leningrad, 1955 (Dissertations For the Degree of Candidate of Physicomathematical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

~~SECRET~~  
RUCHKINA, V.D.

X-ray analysis of the correlation between the structure of palladium catalysts, the conditions of electric supply, and the heat treatment. Izv. AN SSSR. Ser. fiz. 20 no. 7:761-763 J1 '56. (MLRA 9:11)

1. Frunzenskiy politekhnicheskiy institut.  
(Palladium) (Catalysts) (X-rays--Industrial applications)

RUCHKO, B.F., inzhener.

Results of testing a specimen of cutter loader "DONBASS-7". Ugol' 32  
no.2:32-33 F '57. (MIRA 10:3)

1. Dongiprouglesh.  
(Coal mining machinery)

UCHEN, B., inzhener.

Donbass-7. Mast. ugl. 6 no. 6:14-15 Je '57.  
(Coal mining machinery)

(MIRA 10:8)

HUCHKO, B.F.

"Ukraina" cutter-loader. Ugol' Ukr. 4 no.5:20  
My '60. (MIRA 13:8)  
(Coal mining machinery)

RUCHKO, Boris Fedorovich; GREBESHKOV, Yuriy Vasil'yevich; BOGUTSKIY,  
N.V., otv.red.; SILINA, L.A., red.izd-va; BERESLAVSKAYA, L.Sh.,  
tekh.red.

["Ukraina" cutter-loader] Ugol'nyi kombain "Ukraina." Moskva,  
Gos.nauchno-tekh.izd-vo lit-ry po gornomu delu, 1960. 55 p.  
(MIRA 14:1)

(Coal mining machinery)

RUCHKO, Boris Fedorovich; GREBESHKOV, Yuriy Vasil'yevich;  
LYUBOSHCHINSKIY, Dmitriy Markovich; KAZAK, Yuriy Nikolayevich;  
BOGUTSKIY, N.V., otv. red.; SILINA, L.A., red. izd-va;  
BOLDYREVA, Z.A., tekhn. red.

[ "Ukraina-1" coal cutter-loader] Ugol'nyi kombain  
"Ukraina-1" Moskva, Gosgortekhnizdat, 1963. 242 p. (MIRA 16:7)  
(Coal mining machinery)

RUCHKO, B.F., inzh.; GOL'DSHTeyN, M.Ya., inzh.; ZHIZLOV, N.I., kand.  
tekhn. nauk.; ALEKSEYEV, A.D., inzh.

Using powered supports in a steeply pitching seam with a  
diagonal stope. Ugol' Ukr. 9 no.12:9-13 D '65.

(MIRA 19:1)

1. Dongiprouglesh (for Ruchko, Gol'dshteyn). 2. Donetskii  
politekhnicheskii institut (for Zhizlov, Alekseyev).

L 34828-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6016759

(N)

SOURCE CODE: UR/ 0394/66/004/001/0014/0016

AUTHOR: Smolentsev, P. I.; Ruchko, G. V.; Skovets, Ye. M. 31  
E

ORG: Ukrainian Agricultural Academy (Ukraininskaya sel'skokhozyaystvennaya akademiya)

TITLE: Use of polarographic analysis for determining the bulk content of molybdenum in soil 27

SOURCE: Khimiya v sel'skom khozyaystve, v. 4, no. 1. 1966, 14-16

TOPIC TAGS: soil chemistry, polarographic analysis, molybdenum, electrolysis

ABSTRACT: A polarographic method based on previous research work is proposed for determining bulk content of molybdenum in soil. Molybdenum may be determined in quantities as low as  $1.7 \cdot 10^{-6}$  g by proper selection of the base electrolyte and extraction method. The M8-2000 visual polarograph No 734 at the Institute of Chemistry, Groky University was used in the experiment with 1/25 of the total galvanometer sensitivity, which was  $7.1 \cdot 10^{-10}$  a/mm/m. The experiments were conducted at a temperature of 20°C. The anode was a saturated calomel electrode connected to the electrolyzer by a low-resistance agar switch with potassium chloride. The half-wave potential for reduction of molybdenum was 0.30 v. The molybdenum is almost completely extracted from the soil by treatment in concentrated nitric, sulfuric and hydrochloric acids. The process consists of roasting 2-3 g of air-dried soil in a porcelain vessel

UDC: 546.77+631.423

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for calcination of organic material, and then adding 1.5 ml of nitric ( $d=1.4$ ) and sulfuric ( $d=1.84$ ) acids per gram of soil after which the mixture is set under an exhaust hood and evaporated until dry. When the resultant material has cooled, 0.3 ml of concentrated sulfuric acid and 0.5 ml of concentrated hydrochloric acid are added for every gram of soil and the mixture is again evaporated until dry. The resultant compounds are dissolved by adding 2-3 ml of concentrated hydrochloric acid to the dry residue which is then heated, diluted with 10-15 ml of distilled water, boiled and poured through a folded ash-free filter. The operation is repeated several times for more complete extraction of the molybdenum compounds. After precipitation and heat treatment, a few drops of concentrated ammonia solution were added to the residue followed by heating and addition of the base electrolyte (3 ml 3 n.  $\text{NH}_4\text{NO}_3$ -0.15 n.  $\text{NHO}_3$ ). Hydrogen was then passed through the solution and the polarogram was taken. Tests of the method show a divergence of 2-3% between the polarographic and colorimetric methods for molybdenum determination in soil. The relative error in polarographic analysis is less than  $\pm 5.5\%$ . Orig. art. has: 2 tables.

SUB CODE: a / SUBM DATE: 14May65/ ORIG REF: 003/ OTH REF: 001

Card 2/2 *IV*

SKOBETS, Ye.M.; SMOLENISEV, P.I.; RUCHKO, G.V.

Determining phosphoric acid in soil by the polarographic method  
with the use of a complexon. Nauch.dokl.vys.shkoly; biol.nauki  
no.2:182-183 '63. (MIRA-16:4)

1. Rekomendovana kafedroy neorganicheskoy i analiticheskoy  
khimii Ukrainskoy sel'skokhozyaystvennoy akademii.  
(SOILS PHOSPHORUS CONTENT) (POLAROGRAPHY)

SKOBETS, Ye.M.; RUCHKO, G.V.

Polarographic determination of sulfate ions in the water extract  
of soil. Nauch.dokl. vys.shkoly; biol.nauki no. 2:199-200 '64.  
(MIRA 17:5)

1. Rekomedovana kafedroy neorganicheskoy i analiticheskoy  
khimii Ukrainskoy sel'skokhozyaystvennoy akademii.

RUCHKO, G. V.

Molecular compounds of aluminum bromide with bromine, calcium and silver / E. Ya. Gorenberg

C. H. Fuchsman

pm

Chem Inorg Chem -

SKOBETS, Ye.M.; RUCHKO, G.V.

Polarographic determination of bases absorbed by soil using the  
Kappen-Hilkowitz method. Nauch. dokl. vys. shkoly; biol. nauki  
no.3:189-192 '61. (MIRA 14:7)

1. Rekomendovana kafedroy neorganicheskoy i analiticheskoy khimii  
Ukrainskoy sel'skokhozyaystvennoy akademii.  
(SOILS--ANALYSIS) (POLAROGRAPHY)

SKOBETS, Ye.M.; RUCHKO, G.V.

Determination of chloride ion in the soil by the polarographic method. Nauch. dokl. vys. shkoly; biol. nauki no. 4:196-197'63.  
(MIRA 16:11)

1. Rekomendovana kafedroy neorganicheskoy i analiticheskoy khimii Ukrainskoy sel'skokhozyaystvennoy akademii.

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L 54556-65 EWT(m)/T

ACCESSION NR: AP5016715

UR/0286/65/000/010/0017/0017

AUTHORS: Mirskiy, Ya. V.; Mitrofanov, M. G.; Papkov, B. M.; Bolotov, L. T.; Ruchko, L. F. 18

TITLE: A method for obtaining synthetic zeolites of type X. Class 12, No. 170912 15

SOURCE: Byulleten' izobrateniy i tovarnykh znakov, no. 10, 1965, 17

TOPIC TAGS: zeolite, synthetic zeolite, aluminum, silicon, crystallization

ABSTRACT: This Author Certificate presents a method for obtaining synthetic zeolites of type X by hydrothermal crystallization of aluminum-silicon gel in an alkaline medium at a temperature of 95-100C. To improve the adsorption properties of the obtained zeolites, an excessive amount of alkali is introduced into the aluminum-silicon gel, while heating up to 95-100C is accomplished with live steam and is accompanied by mechanical mixing. Next, water heated to the same temperature is added in such an amount that the molar ratio  $H_2O : Na_2O$  in the hydrogel is equal to 38 : 45.

ASSOCIATION: Groznenskiy neftyanoy nauchno-issledovatel'skiy institut (Groznyy Scientific Research Institute of Petroleum)

Card 1/2

L 27892-66 EWT(m)/T

ACC NR: AP5024962

SOURCE CODE: UR/0286/65/000/016/0024/0024

AUTHORS: Mirskiy, Ya. V.; Golovko, V. G.; Papkov, B. M.; Ruchko, L. F.

9  
B

ORG: none

TITLE: A method for obtaining granular synthetic zeolites of Type A. Class 12, No. 173719 [announced by Groznyy Petroleum Scientific Research Institute (Groznenkiy neftyanoy nauchno-issledovatel'skiy institut)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 24

TOPIC TAGS: zeolite, aluminosilica gel

ABSTRACT: This Author Certificate presents a method for obtaining granular synthetic zeolites of type A by crystallization of aluminosilica gel. To produce mechanically strong zeolites without using a binder, aluminosilica gel with a water content of 29-39% is subjected to granulation, and the resulting granules are heated at a temperature of 90-150C.

SUB CODE: MT, GC/ SUBM DATE: 27Apr64/ ORIG REF: 000/ OTH REF: 000

Card 1/1 UDC: 661.183.6 66.099.2

ACCESSION NR: AT 4016001

S/2625/63/000/015/0165/0175

AUTHOR: Mirskiy, Ya. V.; Mitrofanov, M. G.; Popkov, B. M.; Ruchko, L. F.;  
Bolotov, L. T.; Mezhlumova, A. I.

TITLE: Development of the technology for the industrial preparation of molecular sieves

SOURCE: Grozny\*y. Neftyanoy nauchno-issledovatel'skiy institut. Trudy\*, no. 15, 1963. Tekhnologiya pererabotki nefti i gaza. Neftekimiya (Technology of processing petroleum and gas. Petroleum chemistry), 165-175

TOPIC TAGS: adsorbent, zeolite, molecular sieve, hydrogel, aluminosilicate

ABSTRACT: The characteristics and industrial production of adsorbent synthetic zeolites having good molecular-sieve properties have been investigated, using microgranular sodium zeolite with cubic crystals of 0.1 to several microns on a side. The results show that the properties of zeolites are affected by the following factors: method of preparation and composition of the hydrogel, temperature and duration of crystallization, concentration of the gel-forming solutions, stirring of the hydrogel, ion-exchange conditions, washing of the crystals, and granulation and hardening of the zeolites. Zeolites of the structural type designated as Type I (Type A in the West) are of great interest. A  
Card 1/3

ACCESSION NR: AT 4016001

study of the adsorptive properties of sodium and calcium zeolites showed that the adsorptive properties of zeolites crystallized from hydrogels of the same composition, but by different methods, are very similar. The best method of preparation is to mix solutions of sodium aluminate and sodium silicate. A stable Type I zeolite can be made from hydrogels for which the molar ratio  $\text{SiO}_2:\text{Al}_2\text{O}_3$  is  $< 2$ . When this ratio approaches 3, a zeolite of Type II results. Hydrogels crystallize at a satisfactory rate at 75-100C. The effect on the crystal size of the concentration of gel-forming solution and the stirring rate (2 hours at 90C) and the effect of the crystallization time on the adsorptive properties and crystal size of zeolites (crystallization without stirring at 90C) were also investigated and the data tabulated. A new apparatus for preparing zeolites is described in detail and illustrated. In the preparation of the test samples, the yield was 68-74% of the theoretical. These zeolites with their pronounced molecular sieve properties, obtained under industrial conditions, made it possible to crystallize large amounts of aluminosilica hydrogels in large-sized apparatus. Orig. art. has: 1 figure and 6 tables.

ASSOCIATION: Neftyanoy nauchno-issledovatel'skiy institut, Grozny'y (Petroleum Scientific Research Institute)

Card 2/3

ACCESSION NR: AT4016001

SUBMITTED: 00

DATE ACQ: 31Jan64

ENCL: 00

SUB CODE: FP, IC

NO REF SOV: 010

OTHER: 001

Card 3/3

S/194/62/000/004/052/105  
D295/D308

AUTHORS: Lepending, L. F., Rudenko, Yu. S. and Ruchko, R. I.  
TITLE: Calorimetric method for the measurement of ultrasonic power  
PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4-5-29k (V sb. Prom. primeneniye ul'trazvuka. Kuybyshevsk. aviats. in-t, Kuybyshev, 1962, 72-74)

TEXT: The mean intensity of the ultrasonic field of a magnetostriction radiator was measured by means of a calorimeter consisting of two containers insulated from each other and separated by a sound-conducting diaphragm. In one container is the vibrator to be measured and in the other a sound-absorbing substance. Running water is fed into both containers, the temperature of the water being determined by thermometers at the outlet of the containers. The rate of flow of the water is so chosen that the temperatures at the outlet of the calorimeter are equal (in order to

Card 1/2

Calorimetric method for ...

S/194/62/000/004/052/105  
D295/D308

eliminate thermal exchange between the containers). The efficiency of the transducer and the power coefficient are determined on the basis of the rate of flow of water and of the current and voltage applied to the radiator. / Abstracter's note: Complete translation. /

Card 2/2

27 180

S/263/62/000/014/005/006  
1007/1207

AUTHOR: Lependin, L. F., Rudenko, Yu. S. and Ruchko, R. I.

TITLE: Calorimetric method of measuring ultrasonic intensity

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel'naya tekhnika, no. 14, 1962, 24, abstract 32.14.152. (In Collection Prom. primeneniye ul'trazvuka. Kuybishevsk. aviats. in-t. Kuybyshev, 1961, 72-74)

TEXT: A method used at the Taganrogskiy radiotekhnicheskoy institut (Taganrog Electronics Institute) for calorimetric determination of the average intensity of an ultrasonic field is described. The method, combined with measurements of voltage and intensity of electric current applied to the radiator, permits the determination of the electroacoustic efficiency and of the power factor ( $\cos \varphi$ ) of the radiator. There are 2 figures.

JB

[Abstracter's note: Complete translation.]

Card 1/1

b0335

S/194/62/000/006/123/232  
D256/D308

12/1380

AUTHORS: Lependin, L.F., Rudenko, Yu.S., and Ruchko, R.I.

TITLE: Effect of ultrasound on crystallization of polycrystalline

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-5-40 y (V sb. Primeneniye ul'traakust. k issled. veshchestva, no. 12, M., 1960, 77-80)

TEXT: The process of crystallization of hyposulphite was investigated at 80 kc/s and approx. 3 W/cm<sup>2</sup> energy flux. The crystallization of the hyposulphite was observed in test-tubes placed in a water bath. Without the ultrasound the crystallization started from the bottom of the tube and to some extent from the central region of the melt. Photographs were taken showing a coarse grained structure with a large number of blisters. Using the ultrasonic treatment the crystallization starts at the top of the tube and spreads downwards producing a uniform mass free of blisters. It is shown that the change of the crystalline structure results in chan-

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REFERENCE S/194/62/000/006/123/232

Effect of ultrasound on ...

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ged mechanical properties of hyposulphite, the strength and the modulus of elasticity being increased. Crystallization of zinc from a melt was investigated using a magnetostrictive radiator with concentrator at 30 kc/s and 5 to 6 W/cm<sup>2</sup> energy flux. A fine grain structure with crystals having equal axes, an increased strength limit and reduced modulus of elasticity was obtained. 4 figures. [Abstracter's note: Complete translation.]

Card 2/2

I. 33339-60 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI JE/HM/GD

ACC NR: AT6013170

(A)

SOURCE CODE: UR/0000/60/000/000/0075/0076

AUTHOR: Lependin, L. F.; Rudenko, Yu. S.; Ruchko, R. I.

ORG: none

TITLE: Ultrasonic effect on weld structure in electroslag welding

SOURCE: Moscow. Oblastnoy pedagogicheskiy institut. Primeneniye ul'traakustiki k issledovaniyu veshchestva, no. 12, 1960, 75-76

TOPIC TAGS: welding, ultrasonic welding, ~~electroslag welding~~ WELD EVALUATION

ABSTRACT: A number of experimental welds made with the use of ultrasonics in an electroslag welding tank has been carried out. By metallographic examination, a noticeable difference was detected in the structure of weld samples and not exposed to sonic waves. The microstructure of the weld, crystallizing in the ultrasonic field, is more homogeneous. Experimental welding for more thorough study of the ultrasonic effect on the mechanical properties of welds are being carried out. Orig. art. has: 2 figures. [NT]

SUB CODE: 11/ SUBM DATE: 31Oct60/ ORIG REF: 005/ OTH REF: 003/

Card 1/1

S/194/62/000/005/086/157  
D222/D309

AUTHORS: Lependin, L.F., Rudenko, Yu.S., and Ruchko, R.I.

TITLE: Some experiments on the kinetics of crystallization  
from solutions in an ultrasound field

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,  
no. 5, 1962, abstract 5-5-41 1(V sb. Prom. primeneniye  
ul'trazvuka, Kuybyshevsk. aviats. in-t. Kuybyshev.  
1961, 220 - 228)

TEXT: The influence of low and high intensity ultrasound on the  
kinetics of crystallization and on the physical properties of zinc  
and hyposulphite were investigated, which, since they are transpa-  
rent, have a macrocrystalline structure when crystallized under nor-  
mal conditions, and a low crystallization temperature. Sound radia-  
tion was obtained from a magnetostrictive vibrator at a frequency of  
30 kc/s and intensity up to 5 - 6 W/cm<sup>2</sup> in the melted metal. In the  
intense ultrasound field a marked change in the structure of the  
ingot was observed towards fine-grain structure; the crystalliza-  
tion process changed from frontal to volume; the average density of  
Card 1/2 ✓

Some experiments on the kinetics of ... S/194/62/000/005/086/157  
D222/D309

the ingot remained unchanged. Tensile testing of zinc specimens has shown that in the ultrasound field the proportionality limit is raised, the tensile strength increased, while the modulus of elasticity is reduced. The hyposulphite specimens solidified under the influence of ultrasound showed an increased tensile strength. The irradiated specimens broke down under pressure at 80 - 90 kg/cm<sup>2</sup>, while the non-irradiated ones at 25 - 30 kg/cm<sup>2</sup>. The Young's modulus of the irradiated specimens was 6 - 8 kg/cm<sup>2</sup>, that of the non-irradiated ones 3 kg/cm<sup>2</sup>. Experiments on the action of low-intensity ultrasound (0.03 W/cm<sup>2</sup>) were carried out with hyposulphite specimens. It was observed that under the influence of ultrasonic field, the axis of the crystals is directed along the direction of propagation of the ultrasound; new centers of crystallization arise. The crystal growth takes place through the attachment of complete crystals, which increases the speed of crystallization. The crystals growth in an ultrasound field are more homogeneous and contain less impurities. 8 figures. 3 references. [Abstractor's note: Complete translation].

Card 2/2

36836  
S/137/62/000/004/159/201  
A060/A101

12300  
AUTHORS: Lependin, L. F., Rudenko, Yu. S., Ruchko, R. I.

TITLE: Effect of ultrasonics upon the seam structure of penetrating electric slag welding

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 8, abstract 4E35  
(V sb. "Primeneniye ul'traakust. k issled. veshchestva", no. 12, Moscow, 1960, 75 - 76)

TEXT: The effect of ultrasonic radiation upon the seam structure in the course of electric slag welding was investigated. The welding was carried out of a large number of experimental seams with various variants of introducing the ultrasonic vibration into the vat. Metallographic analysis has discovered a notable difference in the structure of irradiated and nonirradiated specimens of the seam. The microstructure of the seam crystallized in an ultrasonic field is more homogeneous. The dimensions of the grains of a seam on the boundary of the built-up and the base metal are smaller by a factor of 1.2, and by a factor of 1.9 in the center, than those in specimens welded according to the same welding

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Effect of ultrasonics upon...

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A060/A101

schedule but without ultrasonic action. A different etchability is uncovered in seams crystallized under ordinary conditions and in an ultrasonic field, which is the result of the purification of the built-up metal from slag impurities. See also RZhMet, 1961, 1E34.

V. Tarisova

[Abstracter's note: Complete translation]

X

Card 2/2

BUCHKOVSKIY, B. S.

20139 BUCHKOVSKIY, B. S. M. Fudnev i M. Novinskiy-osnovopolozhniki zksperimental' noy onkologii. Vracheb. delo, 1949, No. 6, stb. 481-84.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949

RUCHKOVSKI B.S.

Ob antigennykh svoistvakh geterogennykh opukholei pri kul'tivirovani  
na allantoisnoi obolochke kurinogo zarodysha. [Antigenic charac-  
teristics of heterogenic tumors in culture on the allantoic membrane  
of the chick embryo.] Arkh. pat., Moskva 12:3 May-June 50 p. 59-66.

1. Of the Department of Pathological Physiology of the Institute of  
Clinical Physiology imeni Academician A. A. Bogomolets (Director  
of Institute and Head of Department -- Corresponding Member of  
the Academy of Sciences Ukrainian SSR R. Ye. Kavetskiy) of the  
Academy of Sciences Ukrainian SSR, Kiev.

GLML 19, 5, Nov 50

RUCHKOVSKIY, B. S.

RUCHKOVSKIY, B. S. - "Role of Domestic Scientists in the Development of Experimental Oncology." Sub 3 Dec 52, Acad Med Sci USSR. (Dissertation for the Degree of Candidate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

~~RUCHKOVSKIY, R.S.~~

[Role of Soviet scientists in the development of experimental oncology] Rol' otechestvennykh uchenykh v razvitii eksperimental'noi onkologii. Kiev, Izd-vo Akademii nauk Ukrain'skoi SSR, 1953-  
(Tumors) (MIRA 8:2)

*РУЧКОВС'КИЙ, Б.С.*

RUCHKOV'S'KIY, B.S.

Role of Russian research scientists in the development of comparative oncology. Medych. zhur. 23 no.2:87-91 '53. (MLRA 8:2)

1. Institut klinichnoi fiziologii im. akad. O.O.Bogomol'tsya  
Akademii nauk URSR.  
(TUMORS)

RUCHKOV'S'KIY, B.S.

Leading role of Russian scientists in the development of the theory of parasite and virus etiology of tumors. Report No.1. Medych. zhur. 23 no.3:86-94 '53. (MLRA 8:2)

1. Institut fiziologii Akademii nauk Ukrain's'koi RSR.  
(TUMORS)

RUCHKOV'S'KIY, B.S.

Priority of Russian scientists in developing viral theory of the etiology of tumors. Report No.2:Development of the viral theory of the etiology of tumors following the Great October Socialist Revolution. Medych.zhur.24 no.3:124-131 '54.

(MLRA 8:10)

1. Institut fiziologii im. O.O. Bogomol'tsya Akademii nauk URSR  
(NEOPLASMS, etiology and pathogenesis,  
viral theory, hist. of research in Russia)

RUCHKOV'S'KIY, B.S.

Culture of heterogenous transplantable malignant tumors of animals on the allantois of developing chick embryos. Medych. zhur. 24 no.6:34-42 '54. (MLRA 8:7)

1. Institut fiziologii im. O.O.Bogomol'tsya Akademii nauk URSR.  
(NEOPLASMS, experimental,  
culture in chick embryo)  
(EMBRYO,  
chick embryo, culture of tumor tissue)  
(TISSUE CULTURE,  
of tumor tissue, in chick embryo)

RUGHKOVSKIY, B.S.

Physiological properties of cancerogenic viruses. Fiziol.zhur. [Ukr.]  
2 no.1:96-101 Ja-F '56. (MLRA 10:1)

1. Institut fiziologii imeni O.O.Bogomol'tsya Akademii nauk URSR,  
laboratoriya zakhisnikh i kompensatornikh funktsiy.  
(CANCER) (VIRUSES)

RUCHKOVSKIY, B.S. (Kiyev, 73, ul. Volkovskaya, d.7); GUSLITSER, L.N.  
(Kiyev, 71. ul. Khorevaya, d.4, kv.2)

On the 50th anniversary of the First All-Russian Congress on Control  
of Cancerous Diseases. Vop. onk. 10 no.5:118-121 '64. (MIRA 18:8)

1. Iz Ukrainского nauchno-issledovatel'skogo instituta eksperimental'noy  
i klinicheskoy onkologii (dir. - akademik AN UkrSSR R.Ye.Kavetskiy).

STETSENKO, Nikolay Dem'yanovich [Stetsenko, M.D.]; RUCHKOVSKIY,  
B.S. [Ruchkovs'kyi, B.S.], red.

[Effect of weak impulse currents on the brain] Dlia na  
nozok slabkykh impul'snykh strumiv. Kyiv, Vyd-vo AN  
URSR, 1963. 195 p. (MIRA 17:9)

RUGHKOVSKIY, B.S.; BCRISYUK, Yu.P.; GARASHCHUK, M.A.

Mercury and quartz condenser for stimulating fluorescence in solutions  
for fluorescent-spectral examinations. Lab. delo no.1:61-63 '64.  
(MIRA 17:4)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy  
i klinicheskoy onkologii (direktor - akademik R.Ye.Kavetskiy), Kiyev.

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ENCARTA MEDICA Sec.16 Vol.5/5 Cancer May 1955

~~KOVSKIY~~

1166. *Reaction of the embryonic organism to an implanted tumour (Russian text)* RUCH-KOVSKIY B. S. *Vrac. Delo* 1956, 10 (1035-1038)

These studies were devoted to an investigation of the defensive anticancerous reactions developing in chick embryos during the process of ontogenesis. It was shown that the reactivity of the embryonic organism against the growth of a malignant neoplasm changes markedly throughout the period of embryonic development. Up to 18 days the reactions are insufficient. This is due to the immaturity of the CNS. In order to inhibit the functions of the CNS sodium amytal and medinal were injected into embryos. In these cases, as expected, the tumours were of greater size as compared with controls even of a longer period of growth of the foreign tumour.

RUCHKOVSKIY, B.S. [Ruchkovs'kyi, B.S.]

Role of neural and hormonal factors in the development of heterogeneous tumors. Fiziol. zhur. [Ukr.] 7 no.2:259-265 Mr-Apr '61.  
(MIRA 14:4)

1. Laboratory of Compensatory and Defensive Functions of the A.A.Bogomoletz Institute of Physiology of the Academy of Sciences of the Ukrainian S.S.R., Kiev.

(CANCER)

RUCHKOVSKIY, B. S., Dr. Medic. Sci. (diss) "Features of Development of Soviet Experimental Oncology," Kiev, 1961, 36 pp. (Kiev Medic. Inst.) 250 copies (KL Supp 12-61, 282).

HUCHKOVSKIY, Boris Sergeyevich; KAVETSKIY, R.Ye., prof., akademik, otv.  
red.; GRUDZINSKAYA, O.S., red.izd-va; BRAGINSKIY, L.P., red.izd-va;  
YEFIMOVA, M.I., tekhn.red.

[Studies on the development of Soviet experimental oncology]  
Ocherki razvitiia sovetskoi eksperimental'noi onkologii. Kiev,  
Izd-vo Akad.nauk USSR, 1959. 526 p. (MIRA 13:6)

1. AN USSR (for Kavetskiy).  
(CANCER)

RUCHKOVSKIY, B.S. (Kiyev, Kurenevka, Syretskaya ul., d.38A)

The role of A.A.Bogomolets in the development of oncology; 75th anniversary of his birth and 10th anniversary of his death. Vop. onk. 2 no.5:618-620 '56. (MLRA 10:2)

(BOGOMOLETS, ALEKSANDR ALEKSANDROVICH, 1881-1946)

(NEOPLASMS, history,

contribution of A.A.Bogomolets (Rus))

USSR/General Problems of Pathology - Tumors. Morphology.

U.

Abstr Jour : Ref Zhur - Biol., No 19, 1958, 89544

Author : Ruchkovskiy, B.S.

Inst : -

Title : Innervation of Breast Carcinoma in Mice.

Orig Publ : Fiziol. zh., 1957, 3, No 4, 123-131

Abstract : Nerves of carcinomas of the female breast were demonstrated by the silver impregnation method of Gross-Bil'shevskiy and Campos in highly susceptible to cancer mice of the strain A C<sub>3</sub>H<sub>4</sub> and also CC57. Hyperplasia of nerve fibers was noted, as well as formation of plexus and ingrowth of small nerve branches between the cancer cells, terminating occasionally in the form of endings on the blastomatose cells. Degenerative changes were also noted in the nerves, which suggests the existence, in those cases, of disturbances in the normal conduction of nerve impulses. -- A.A. Grushina.

Card 1/1

SHEVCHENKO, I.T., KORENEVSKIY, L.I., RUCHKOVSKIY, B.S.

Course of development of oncology in the Ukrainian SSR during  
the last 40 years (1917-1957). Vop.Onk.4 no.4:501-504 '58  
(MIRA 11:9)

1. Iz Kiyevskogo rentgeno-radiologicheskogo i onkologicheskogo  
instituta (dir. - prof. I.T. Shevchenko).  
(NEOPLASMS, prev. & control.  
oncol. develop. in Ukrainian SSR (Rus))